

What is claimed is:

- 55 B1 >
1. An image forming apparatus comprising:  
a plurality of print heads arranged in a row;  
first correcting means which correct image data on a  
5 line basis in a sub-scanning direction based on the amount  
of relative inclination between the print heads; and  
second correcting means which correct the image data  
corrected by the first correcting means on a unit basis  
smaller than one line.
  - 10 2. The apparatus according to claim 1, wherein the first  
correcting means perform the correction in an image memory  
and second correcting means perform the correction in a  
FIFO memory.
  - 15 3. The apparatus according to claim 1, wherein the first  
correcting means perform the correction in an image memory  
and second correcting means perform the correction in a  
print head portion.
  - 20 4. The apparatus according to claim 1, wherein the  
amount of inclination is detected as an integral multiple  
of a unit for correction in the correction performed by the  
second correcting means on a unit basis smaller than one  
line.
  - 25 5. An image forming apparatus comprising:  
a plurality of print heads arranged in a row;  
a bit map memory;

a read address generator which sequentially generates read addresses from a leading address in the image data region of the bitmap memory;

5 a write address generator for generating, from the read addresses, write addresses by correcting relative inclination between the print heads on a line basis; and

10 a memory controller which writes image data to an image data region of the bitmap memory, wherein the leading and rear end portions of the image data region provide respective blank regions, reads from the read addresses generated by the read address generator, image data stored in the image region and writes the image data at the write addresses generated by the write address generator.

15 6. The apparatus according to claim 5, wherein the dimensions of the blank regions is equal to or larger than the maximum amount of inclination to be corrected.

7. An image forming apparatus comprising:

20 a bitmap memory having an image data region for storing image data and specified blank regions provided on leading and rear end portions of the image data region; a read address generating unit for generating read addresses for image data based on correction data on relative inclination between the print heads; and an output unit for reading the image data from the 25 generated read addresses.

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8. An image forming apparatus comprising:  
a plurality of print heads arranged in a row;  
a bitmap memory for storing image data;  
a read address generator for consecutively generating  
5 read addresses for image data based on relative inclination  
between the print heads on the unit basis of one burst  
access; and  
10 a memory controller for reading the image data from  
the bitmap memory at the read addresses generated by the  
read address generator.
9. The apparatus according to claim 8, further  
comprising storing means for temporarily storing the read  
image data, the storing means having a capacity of at least  
one line of data, wherein the memory controller comprises a  
15 selecting unit for selectively outputting either of the  
image data read from the bitmap memory and the image data  
stored in the storing means based on the relative  
inclination between the print heads.
10. The apparatus according to claim 8, further  
20 comprising storing means for temporarily storing the read  
image data, the storing means having a capacity of at least  
one line of data and storing, of the data read by a burst  
access from the addresses generated by the read address  
generating unit, data of the length of a specified unit for  
25 correction.

11. A data processing apparatus comprising:  
a memory which stores image data;  
first correcting means which correct image data on a  
line basis; and

5 second correcting means which correct the image data  
corrected by the first correcting means on a unit basis  
smaller than one line.

12. The apparatus according to claim 11, wherein said  
first correcting means includes a read address generator  
10 which sequentially generates read addresses from a leading  
address in the image data region of a bitmap memory, a  
write address generator for generating, from the read  
addresses, write addresses by correcting relative  
inclination on a line basis and a memory controller which  
15 writes image data to an image data region of the bitmap  
memory, wherein the leading and rear end portions of the  
image data region provide respective blank regions, reads  
from the read addresses generated by the read address  
generator, image data stored in the image region and writes  
20 the image data at the write addresses generated by the  
write address generator.